

ABSTRACT OF THE DISCLOSURE

A system and method may be configured to support the evaluation of the economic impact of uncertainties associated with the planning of a petroleum production project, e.g., uncertainties associated with decisions having multiple possible outcomes and uncertainties associated with uncontrollable parameters such as rock properties, oil prices, etc. The system and method involve receiving user input characterizing the uncertainty of planning variables and performing an iterative simulation that computes the economic return for various possible instantiations of the set of planning variables based on the uncertainty characterization. The system and method may (a) utilize and integrate highly rigorous physical reservoir, well, production flow, and economic models, and (b) provide a mechanism for specifying constraints on the planning variables. Furthermore, the system and method may provide a case manager process for managing multiple cases and associated “experimental runs” on the cases.